

AMENDMENTS TO THE DRAWINGS

Replacement Sheets for Figs. 1-10 are attached hereto and submitted as formal drawings of sufficient quality to permit examination. Since three of the drawings are executed in color, the appropriate petition and fee have been submitted herewith.

No new matter has been added or changes made to the previously-submitted informal drawings.

REMARKS

Status of the Claims

Claims 1-8 are currently pending in the present application, with claims 1, 7 and 8 being independent. Claims 1, 3, 4, 7, and 8 are amended. New claims 9-16 are presented. Reconsideration pending claims 1-8, and examination of claims 9-16, are respectfully requested in light of the amendments and remarks presented herein.

Drawings

The Examiner objected to the color photographs submitted without the appropriate petition filed pursuant to 37 C.F.R. 1.84(a)(2) and 1.84(b)(2). The Replacement Sheets attached hereto consist of formal drawings for all of Figs. 1-10, with no new matter added or changes made thereto.

For Figs. 8-10, three sets of color photographs have been submitted, along with a Petition for Acceptance of Color Photographs Pursuant to 37 C.F.R. 1.84(a)(2) and 1.84(b)(2), and the required fee. The submitted color photographs are of sufficient quality such that all details in the drawings are reproducible in black and white in the printed patent, and are necessary to the proper understanding and examination of the patent application.

Priority Claim

The Examiner acknowledged Applicant's priority claim, but found that Applicant failed to comply with the conditions for receiving the benefit of an earlier filing date because "applicant has not updated the specification to include the patent numbers of the patents that have issued from the applications applicant claims for priority."

Applicant has filed herewith an amendment to the specification to update the now issued patents claimed as a priority claim.

Amendments to the Claims

Claim 1 is amended to include the recitation that "said sufficient amount of material preferentially accumulating in at least one sebaceous gland relative to interstitial tissue."

Support for the amendment is present throughout the application, for example at paragraphs [0053], and the experimental results described in paragraph [0097], of U.S. Patent Application Publication No. US 2004/0006328 A1 corresponding to the published version of the present application (herein the "Published Application"). Claims 7 and 8 are amended with similar recitations.

Claims 3 and 4 are amended to provide correct antecedent bases for the claims.

Accordingly, the claim amendments do not add new matter to the present application.

Claim Objections

The Office Action objects to claims 3-5, stating that in "claims 3 and 4, line 1, "said chromophore" has no prior antecedent basis." Applicant's claim amendments address these objections.

Nonobviousness of Claims 1-8

Claims 1-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,817,089 to Tankovich et al. (herein "Tankovich") in view of U.S. Patent No. 5,445,611 to Eppstein et al. (herein "Eppstein"). The claims, as amended, are patentable because neither reference discusses preferentially accumulating energy activatable material into the recited regions relative interstitial tissue.

Amended claim 1 is drawn to a method of treating a sebaceous gland disorder. The method includes topically applying an energy activatable material to a skin section afflicted with a sebaceous gland disorder. A sufficient amount of the material infiltrates into spaces in the skin iontophoretically. The material *preferentially accumulating into one or more sebaceous glands relative to interstitial tissue*. The skin section is exposed to energy sufficient to cause the material to become photochemically or photothermally activated, thereby treating the sebaceous gland disorder. As discussed in paragraph [0053] of the Published Application, and documented by the staining experiments described in paragraph [0097], the claimed invention potentially can cause energy activatable material to concentrate near undesired deposits, which are subsequently degraded upon energy activation. Accordingly, there can be minimal to no destruction of normal adjacent epidermal and dermal structures.

The cited combination cannot render amended claim 1 obvious because neither reference teaches an energy activatable material that preferentially accumulates into at least one sebaceous gland relative to interstitial tissue.

Tankovich is drawn to a method of skin removal by adding a light-absorbing contaminant to skin, and subsequently causing the contaminant to explode with laser pulses, which blow off layers of dead skin cells and other tissues (see Tankovich, abstract). The reference does not teach or suggest preferentially accumulating energy activatable material into at least one sebaceous gland relative to interstitial tissue. Indeed, Tankovich teaches away from claim 1 by utilizing a technique which causes indiscriminant collateral damage to tissues beyond the ones intended to be treated. See Tankovich, column 6, lines 27-31 (stating that “carbon particles within or in the vicinity of the sebaceous glands are heated to vaporization temperatures which causes the particles to fracture violently or vaporize . . . [e]nergy released in the process results in full or partial destruction of epithelium tissue . . .”).

Eppstein is drawn to methods of enhancing the permeability of skin or mucosa. The reference has no disclosure whatsoever regarding preferential accumulation of an energy activatable material in sebaceous glands, openings to an infundibulum, or a pilosebaceous unit relative to interstitial tissue.

Since the cited art fails to teach all the recitations of claim 1, the art cannot establish a prima facie case of obviousness. For at least this reason, claim 1 is patentable. Claims 2-6 all depend ultimately from claim 1. Accordingly, they are all patentable for at least the same reasons as claim 1.

Amended claim 7 includes the recitation that a sufficient amount of the energy activatable material preferentially accumulates into the infundibulum relative to interstitial tissue. Accordingly, the claim is patentable because, as is the case for claim 1, neither Tankovich nor Eppstein teach or suggest the recitation.

Similarly, amended claim 8 includes the recitation that a sufficient amount of the energy activatable material preferentially accumulates into the pilosebaceous unit relative to interstitial tissue. Accordingly, the claim is patentable because, as is the case for claim 1, neither Tankovich nor Eppstein teach or suggest the recitation.

In summary, claims 1-8 are patentable over the combination of Tankovich and Eppstein.

Double Patenting

Claims 1 –8 stand rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,183,773 in view of Eppstein et al., unpatentable over claims 1-7 of U.S. Patent No. 6,600,951. Applicants will file a terminal disclaimer in compliance with 37 C.F.R. §1.321(c) to overcome each of non-statutory double patenting rejections once all other grounds of rejection have been withdrawn.

New Claims 9-16

New claims 9-16 are presented for examination.

Claim 9 depends from claim 1, and recites that exposing the skin section with sufficient energy does not substantially result in fragmentation or vaporization of photochemically or photothermally activated material. Support for claim 9 is present in the application, for example at paragraph [0037] of the Published Application. Claim 9 is patentable for at least the same reasons that claim 1 is patentable. In addition, claim 9 is patentable because the cited art does not teach use of a material that does not substantially result in fragmentation or vaporization of the activated material. Indeed, Tankovich teaches away from claim 9 by utilizing the exact opposite mechanism.

Claims 10 and 11 utilize the recitations for corresponding claims 2 and 3, though claims 10 and 11 ultimately depend from independent claim 7. Accordingly, the claims are patentable for at least the same reasons that claim 7 is patentable.

Similarly, claims 14 and 15 utilize the recitations for corresponding claims 2 and 3, though claims 14 and 15 ultimately depend from independent claim 8. Accordingly, the claims are patentable for at least the same reasons that claim 8 is patentable.

Claim 12, dependent from claim 7, includes the recitation that exposing the skin section with sufficient energy modifies the opening to the infundibulum such that pore pluggage will not occur. Support for the claim is found in the application, for example at paragraph [0024] of the

Published Application. Claim 12 is patentable for at least the same reasons that claim 7 is patentable.

Claim 13, dependent from claim 7, includes the recitation that exposing the skin section with sufficient energy opens the opening to the infundibulum. Support for the claim is found in the application, for example at paragraph [0024] of the Published Application. Claim 13 is patentable for at least the same reasons that claim 7 is patentable.

Claim 16, dependent from claim 8, includes the recitation that exposing the skin section with sufficient energy causes a decrease in sebum production by the modified pilosebaceous unit. Support for the claim is found in the application, for example at paragraph [0025] of the Published Application. Claim 16 is patentable for at least the same reasons that claim 8 is patentable.

The new claims do not add new matter.

CONCLUSION

In view of the amendments and remarks above, Applicants submit that claims 1-16 are in condition for allowance, and allowance thereof is respectfully requested. Applicants encourage the Examiner to telephone the undersigned in the event that such communication might expedite prosecution of this matter.

Dated: February 2, 2007

Respectfully submitted,

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